

FLORIDA KEYS

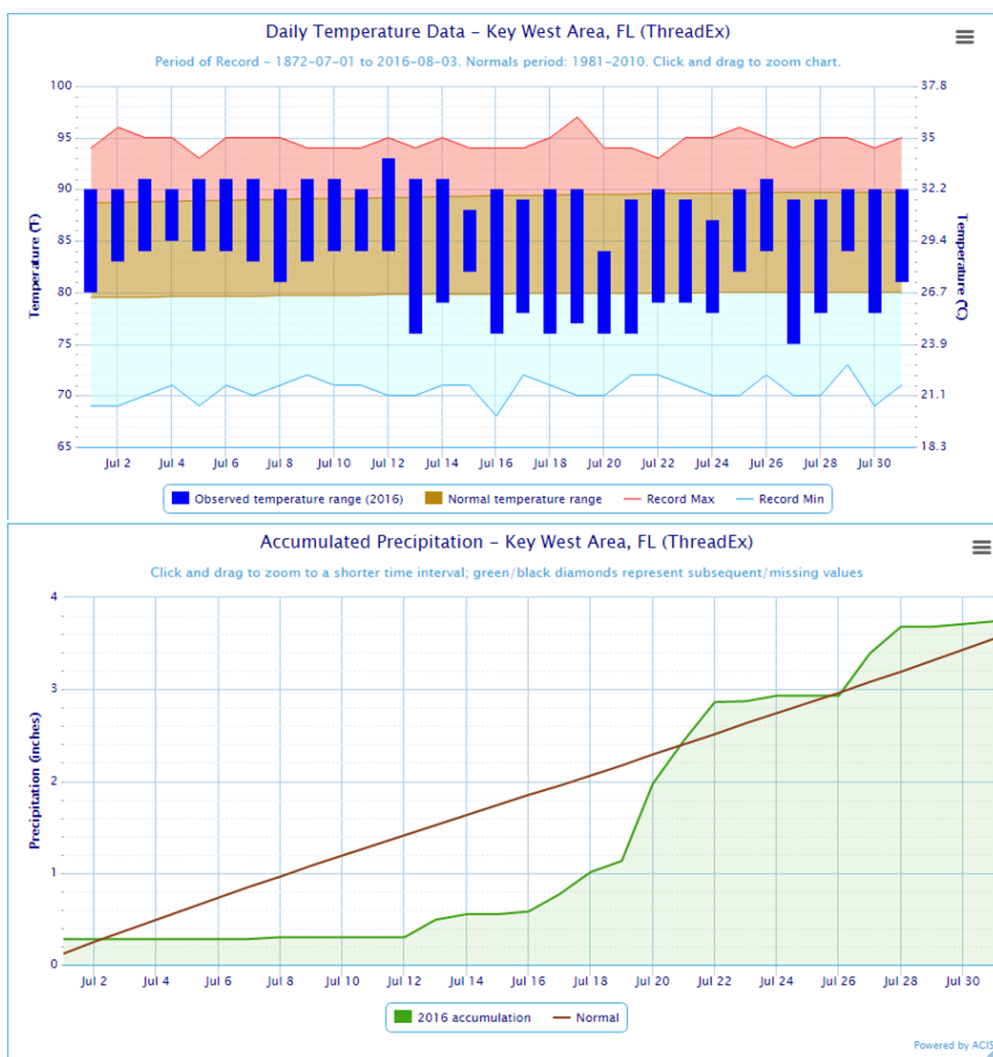
National Weather Service Forecast Office

<http://www.weather.gov/keywest>



JULY 2016 CLIMATE SUMMARY

ABOVE AVERAGE TEMPERATURES ACROSS THE FLORIDA KEYS
SLIGHTLY WETTER THAN AVERAGE OVER THE LOWER/MIDDLE KEYS
FIRST MONTH OF ABOVE AVERAGE RAINFALL IN KEY WEST SINCE FEBRUARY 2016



The image above is a graphical depiction of the daily observed temperatures (top) and the daily accumulated precipitation (bottom) for the Key West International Airport during July 2016. On the top, the blue lines are the observed high/low temperatures, while the red/light blue areas represent the high/low temperature records. The brown shaded area in the middle is the normal high/low temperature range. On the bottom, the brown line is the normal accumulated precipitation for the month, while the light green line/area represents the July 2016 accumulated rainfall. The "Normal Period" referred to in this summary is the 30-year period between 1981 and 2010.

WEATHER SYNOPSIS

The first half of July 2016 started off hot and dry across the Florida Keys. Through July 19th, the average temperature observed in Key West was 85.8°F, which at the time ranked in the top 10 for warmest Julys on record. Precipitation wise, only 0.55 inches of rainfall was observed in Key West through July 15th, which was well below the normal of 1.74 inches thru this date. The warmer and drier than normal weather was likely due to the persistent high pressure across the western Atlantic and the Florida Peninsula, keeping winds light and easterly. This is evident in the sea level pressure anomalies shown in Figure 1, highlighting positive anomalies over much of Florida. The Keys also fell under multiple Saharan Air Layer (SAL) episodes, which aided in the drier than normal conditions.

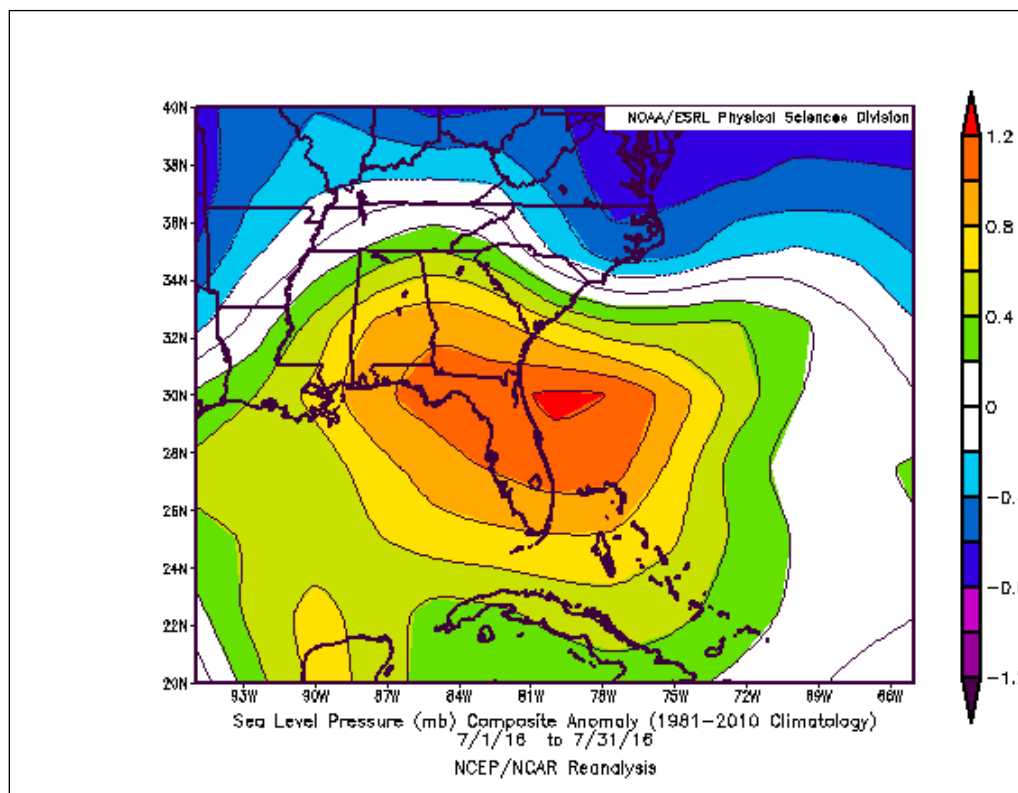


Figure 1: Sea level pressure anomalies for July 2016

The high pressure center then began drifting northward as we entered the second half of the month, allowing winds to shift more southeasterly, ushering in more tropical moisture across the island chain. Starting on July 13th, Key West observed 12 consecutive days of at least a Trace of rainfall, and recorded a total of 2.63 inches during this time span. A trace is defined as observed precipitation, but is not enough to be measured. With this increased frequency of rain events, temperatures began to return to more seasonable levels than what was observed earlier in the month.

TEMPERATURES ACROSS THE KEYS

Here is a look at the average/normal monthly temperatures, departures from normal, and the highest/lowest readings of the month, as shown in Table 1. A majority of the island chain experienced warmer than normal temperatures during July. Island communities along the Upper Keys experienced the largest departures from normal, which is partly due to the reduced amount of rainfall observed over those areas, thus ultimately less cloud cover to help keep temperatures near normal.

With an average temperature of 85.1 degrees, July tied as the 18th warmest on record in Key West. With two thirds of the way through the meteorological summer (June-August), Key West has observed an average temperature of 84.5 degrees, which stands as the tie for the 17th warmest summer on record. Temperature records in Key West date back to 1872.

LOCATION (TYPE)	AVERAGE (°F)	NORMAL (°F)	DEPT. (°F)	HIGHEST & DATE [◇]	LOWEST & DATE [◇]
Dry Tortugas (COOP)	85.5	84.7	+0.8	94 – 10 th	73 – 24 th
NWS Key West (COOP)	84.5	84.5 [^]	0.0	92 – 13 th	74 – 27 th
Key West International Airport (ASOS)	85.1	84.5	+0.6	93 – 12 th	75 – 27 th
Bahia Honda State Park (COOP)	85.1	83.9	+1.2	94 – 14 th	71 – 25 th
Marathon Florida Keys Airport (ASOS)	85.8	85.0	+0.8	94 – 12 th	72 – 24 th
Curry Hammock State Park (COOP)	84.9	84.3	+0.6	92 – 14 th	73 – 25 th
Duck Key (COOP)	84.9	84.0	+0.9	92 – 7 th	73 – 27 th
Islamorada (COOP)	85.5	83.6	+1.9	90 – 29 th	74 – 27 th
John Pennekamp State Park (COOP)	84.9	83.0	+1.9	93 – 13 th	72 – 18 th

Table 1: Average/Normal temperatures, departures from normal, and date of occurrence.

[◇]Some dates are the last of multiple occurrences.

RAINFALL TOTALS ACROSS THE KEYS

Table 2 below depicts the monthly/normal rainfall totals, and departures from normal. Some of the highest rainfall totals for the month were observed across the Lower and Middle Keys. Bahia Honda State Park had the largest total at 6.38 inches of rainfall, with 3.71 inches being observed during a two day span from the 24-25th. Deficits were observed along the Upper Keys, with several locations 2-3 inches below normal.

While the month of July in Key West finished at 3.74 inches, or the 31st wettest July on record, the last two weeks of the month ranked as the 5th wettest such period with 2.97 inches of rain falling. Season to date (June-July), Key West has observed the 12th driest summer with just 4.88 inches of rainfall. Year to date, Key West has received 16.53 inches of rainfall, which results in a deficit from normal of 1.76 inches. This ranks as the 30th driest year on record through July 31st. Rainfall records in Key West date back to 1871.

LOCATION (TYPE)	RAINFALL (INCHES)	NORMAL (INCHES)	DEPARTURE (INCHES)
Bahia Honda State Park (COOP)	6.38	4.36	+2.02
Cudjoe Key 0.9 SSW (CoCoRaHS)	5.99		
Key West 0.5 SW (CoCoRaHS)	5.81		
Cudjoe Key (CWOP)	5.12		
Marathon Florida Keys Airport (ASOS)	4.81	4.28	+0.53
NWS Key West (COOP)	4.76	3.55 [^]	+1.21
Islamorada 7.8 SW (CoCoRaHS)	4.75		
Big Coppitt Key 0.2 NW (CoCoRaHS)	4.66 [*]		
Key West 1.0 SSW (CoCoRaHS)	4.46		
Key West 1.3 ENE (CoCoRaHS)	4.30		
Key Largo 5.3 SW (CoCoRaHS)	3.87		
Duck Key (COOP)	3.75	3.81	-0.06
Key West International Airport (ASOS)	3.74	3.55	+0.19
Ramrod Key (CWOP)	3.68		
Key Largo 6.2 NE (CoCoRaHS)	3.22		
Dry Tortugas (COOP)	3.12 [*]	2.90	+0.22
Curry Hammock State Park (COOP)	2.40	3.79	-1.39
John Pennekamp State Park (COOP)	2.31	5.05	-2.74
Marathon 6.8 ENE (CoCoRaHS)	2.20 [*]		
Islamorada (COOP)	1.76	4.48	-2.72

Table 2: Total/normal rainfall, and departure from normal, where available. Normals are not calculated for CoCoRaHS or CWOP sites, and require a longer period of data than is presently available at the NWS Key West White Street location.

^{*}Missing Days [^]Key West International Airport Normal

Daily Records Set or Tied During July 2016 at Key West

A total of 5 Warm Minimum Temperature records were either set or tied (Table 3) at the Key West International Airport during the month of July. The two new records occurred on Independence Day (July 4th) and on the 12th of July. No precipitation records were set or tied during July 2016.

Record Type (Set or Tied)	Date Set in 2016	Record Value	Previous Record	Previous Record Year
Warm Minimum Temperature (Tied)	July 3 rd	84	84	2014
Warm Minimum Temperature (Set)	July 4 th	85	84	2015
Warm Minimum Temperature (Tied)	July 5 th	84	84	2015
Warm Minimum Temperature (Tied)	July 6 th	84	84	1996
Warm Minimum Temperature (Set)	July 12 th	84	83	2011

Table 3: Warm minimum temperature records, date of occurrence, and previous record.

References

[National Centers for Environmental Information \(NCEI\)](#)

[NOAA Earth Systems Research Laboratory \(ESRL\)](#)

[Community Collaborative Rain, Hail & Snow Network \(CoCoRaHS\)](#)

[NWS NOWData - Powered by ACIS/NOAA Regional Climate Centers](#)

Additional Resources can be found on the [NWS Key West Climate Page](#)

Contact Information

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